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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,289	09/25/2003	Theodorus Henricus Gerardus Maria Peters	903-86	1500

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EXAMINER

MRUK, GEOFFREY S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

STM

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/671,289	PETERS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Geoffrey Mruk	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                        |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>25 September 2003</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kovacs et al. (US 6,139,611).

With respect to claim 1, Kovacs discloses a method for printing a substrate with ink drops according to the "drop-on-demand" principle (Column 1, lines 49-67), which substrate is provided with a polymeric ink-receiving layer (Column 4, lines 30-38), using an ink jet printing device, the printhead of which is provided with a piezo element (Column 1, line 63) for generating ink drops, the method comprising the steps of supplying the substrate, generating ink drops and depositing the generated ink drops on the substrate, wherein the ink from which the ink drops are formed, has an ink composition (Column 5, lines 45-50) which comprises a dye (Column 3, lines 55-67; Column 4, lines 1-5), water (Column 5, line 47), a lower alcohol (Column 5, lines 48-49) and humectant (Column 5, line 48), wherein the lower alcohol content is 5-30% by weight (Column 5, lines 48-49).

With respect to claim 2, Kovacs discloses a lower alcohol is selected from the group consisting of monohydric alcohols having 1-4 carbon atoms (Column 5, lines 12-27).

With respect to claim 3, Kovacs discloses the lower alcohol comprises isopropanol (Column 5, lines 12-27, i.e. n-propyl alcohol).

With respect to claim 4, Kovacs discloses the humectants comprise one or more polyhydric alcohols, polyethylene glycols, or polypropylene glycols (Column 4, lines 54-67; Column 5, lines 1-11).

With respect to claim 7, Kovacs discloses the substrate comprises a polymeric ink-receiving layer made from a swelling polymer (Column 4, lines 30-38, i.e. gelatin).

With respect to claim 8, Kovacs discloses an ink composition (Column 5, lines 45-50), particularly suitable for the method according to one of the preceding claims, wherein the ink composition comprises a dye (Column 3, lines 55-67; Column 4, lines 1-5), water (Column 5, line 47), lower alcohol (Column 5, lines 48-49) and humectant (Column 5, line 48), the lower alcohol content thereof being 5-30% by weight (Column 5, lines 48-49).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs et al. (US 6,139,611) in view of Gregory et al. (US 5,755,862).

With respect to claim 5, Kovacs discloses a humectant.

Kovacs fails to disclose a humectant to lower alcohol weight ratio is between 0.10 and 1.50.

Gregory discloses a humectant to lower alcohol weight ratio is between 0.10 and 1.50 (Table 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the teachings of Gregory for the ink composition of Kovacs. The motivation for doing so would have been to provide an ink that can "provide sharp, non-feathered images which have good waterfastness, light fastness and optical density, have fast fixation to the substrate and cause no clogging of the nozzle" (Column 1, lines 9-19).

2. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs et al. (US 6,139,611) in view of Banczak et al. (US 4,021,252).

Kovacs discloses the lower alcohol and an ink composition.

Kovacs fails to disclose the lower alcohol to water weight ratio is between 0.08 and 0.6 and an ink composition that has a viscosity greater than 3cP.

Banczak discloses an ink composition where the lower alcohol percentage by weight is 9.5% and the water percentage by weight is 19% (Column 8, lines 17-37) and an ink composition that has a viscosity greater than 3cP (Column 8, lines 24-37).

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the teachings of Banczak for the ink composition of Kovacs. The motivation for doing so would have been to maintain a desired viscosity level (Column 8, lines 17-24).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is (571) 272-2810. The examiner can normally be reached on 7am - 330pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM  
4/5/2005

GM

  
4/14/05  
MANISH S. SHAH  
PRIMARY EXAMINER